The Skyline Problem (View)

A city's **skyline** is the outer contour of the silhouette formed by all the buildings in that city when viewed from a distance. Given the locations and heights of all the buildings, return *the **skyline** formed by these buildings collectively*.

The geometric information of each building is given in the array `buildings` where `buildings[i] = [left_i, right_i, height_i]`:

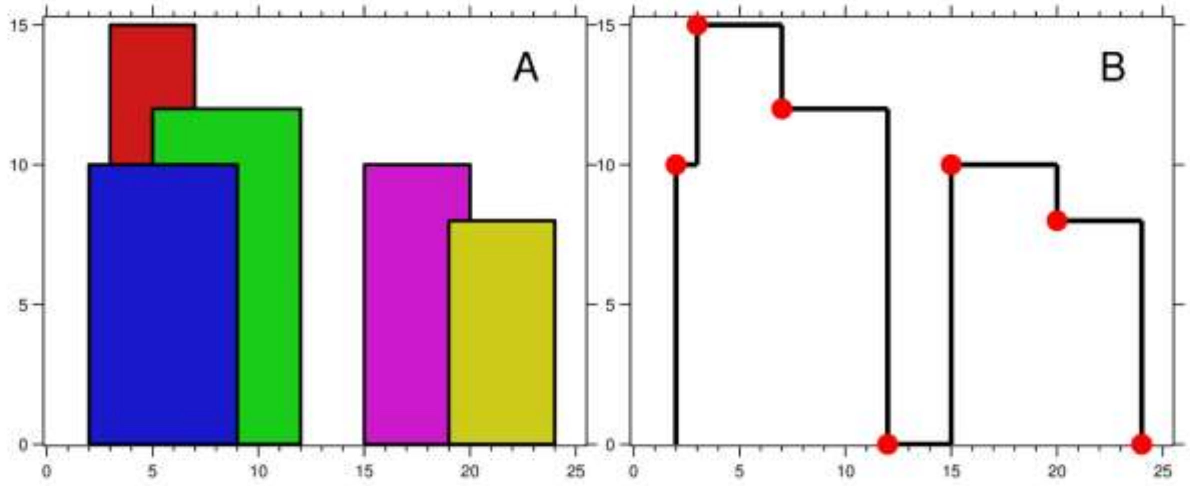
- `left_i` is the x coordinate of the left edge of the `i^th` building.
- `right_i` is the x coordinate of the right edge of the `i^th` building.
- `height_i` is the height of the `i^th` building.

You may assume all buildings are perfect rectangles grounded on an absolutely flat surface at height `0`.

The **skyline** should be represented as a list of "key points" **sorted by their x-coordinate** in the form `[[x_1,y_1],[x_2,y_2],...]`. Each key point is the left endpoint of some horizontal segment in the skyline except the last point in the list, which always has a y-coordinate `0` and is used to mark the skyline's termination where the rightmost building ends. Any ground between the leftmost and rightmost buildings should be part of the skyline's contour.

Note: There must be no consecutive horizontal lines of equal height in the output skyline. For instance, `[...,[2 3],[4 5],[7 5],[11 5],[12 7],...]` is not acceptable; the three lines of height 5 should be merged into one in the final output as such: `[...,[2 3],[4 5],[12 7],...]`

Example 1:



```
Input: buildings = [[2,9,10],[3,7,15],[5,12,12],[15,20,10],[19,24,8]]

Output: [[2,10],[3,15],[7,12],[12,0],[15,10],[20,8],[24,0]]

Explanation:

Figure A shows the buildings of the input.

Figure B shows the skyline formed by those buildings. The red points in figure B
represent the key points in the output list.
```

Example 2:

```
Input: buildings = [[0,2,3],[2,5,3]]

Output: [[0,3],[5,0]]
```

Constraints:

- $1 <= \text{buildings.length} <= 10^4$
- $0 <= \text{left}_i < \text{right}_i <= 2^{31} - 1$
- $1 <= \text{height}_i <= 2^{31} - 1$
- `buildings` is sorted by left_i in non-decreasing order.